Amendments to the Specification:

Please replace paragraphs **[0019]** and **[0020]** beginning at page 3, line 28, with the following rewritten paragraphs:

[0019] Figure 1 is a diagrammatic drawing of a typical wall flow monolith particulate trap 10 "particulate trap" used in diesel applications. The particulate trap 10 includes alternating closed cells/channels 14 and open cells/channels 12. Exhaust gases such as those generated by a diesel engine enter the closed end channels 14 depositing particulate matter 16 and exit through the open channels 12. Referring to Figure 2, a more detailed view of the exhaust flow through closed end 14 and open end 12 channels can be seen. Plugs 18 are used to seal the ends of the channels 12 and 14. The walls 20 of the particulate trap are preferably comprised of a porous ceramic honeycomb wall of ~~chordierite~~ cordierite material, but any ceramic honeycomb material is considered within the scope of the present invention.

[0020] Figure 3 is a diagrammatic drawing of the microwave system 22 of the present invention. The system 22 includes a particulate trap 10 placed in the exhaust flow of a diesel engine. The particulate trap 10 includes a microwave-absorbing material 24 such as silicon carbide configured to absorb microwaves in selected locations in the particulate trap 10, but any known microwave-absorbing materials are considered within the scope of the present invention. A microwave power source 26 and microwave antenna 28 are operatively coupled to a wave guide 30 and an optional focus ring 32 to direct the microwaves to the microwave-absorbing material 24. In alternate embodiments of the present invention, the microwave antenna 28 is directly coupled to the housing of the particulate trap 10. The microwave-absorbing material 24 generates heat in response to incident microwaves to initiate the burn-off of particulates in the particulate trap 10. Materials such as ~~chordierite~~ cordierite that are transparent to microwaves are preferably used for the basic construction of the particulate trap 10 housing and other areas in the particulate trap 10 where it would be inefficient to absorb microwave energy. As the ~~chordierite~~ cordierite does not absorb microwave

energy, the microwaves will "bounce" around until they are incident upon the microwave-absorbing material 24. The channels 12 and 14 are further configured to guide the microwaves to the microwave-absorbing material 24. The temperature of the particulate trap 10 may be regulated by the properties and location of the microwave-absorbing materials and by controlling the application of the microwave energy.